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by

Yingyong Shengxue

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By: Yingyong Shengxue

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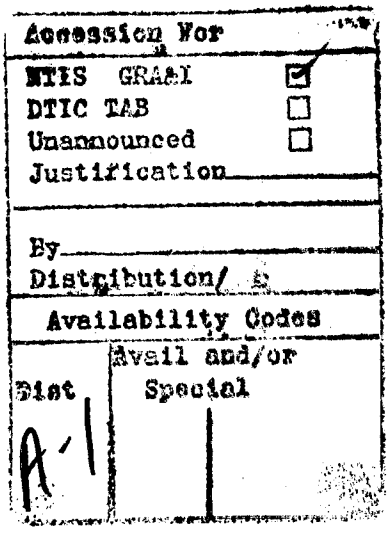

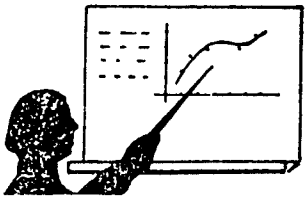

Conference Report

National "Information conference on supersonic electronic instruments which deal with electron-management, and applied science of radar and military communication technology" was assembled and held at Anhui Province.

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To promote cross-pollination of supersonic electronic science with military system technology, in pushing the development of both these two branches of technology, the Chinese Acoustics Society-Supersonic Electronic Science Branch in cooperating with the Chinese Electronic Society-Electron-Management Society held a conference from October 15 to 19, 1990 at Wang-San of Anhui Province to assemble and hold a nationwide "Information dissemination conference on supersonic electronic instruments which deal with electron-management, and applied science of radar and military communication technology". The participants were professors, specialists and leading figures from 8 graduate schools, 18 Research institutes and 4 enterprises, totalling up to more than 80 persons. Editors of <<Applied Acoustics>> and <<Electron Management>> also sent delegates of editorial specialists to attend.

The conference received 66 research papers. The contents covered 6 areas, such as acoustic surface wave instrumentation, high frequency-body sound-wave instruments,

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* Numbers in margins indicate foreign pagination. Commas in numbers indicate decimals.

sonic-optic instruments, the instruments applied to radars, instruments used in electron-management, and instruments used in military communication systems, etc. All reflected the great progress being made in recent years in our country on supersonic electronic instrumentation research. Beside the number and quality which have seen great progress and improvement, a break-through development has been made in the area of systems application. It shows how important supersonic electronic technology is in modernizing national defense.

The conference representatives in general recognized that the conference on technology depended very much on the atmosphere, and discussions became very heated; specialists in instrumentation and those from systems science promoted mutual understanding and cross-pollination, and the conference raised mutual questions on the effect of broadening the perspectives, and thus the representatives at the end recognized the need to unite the instrumentation society and the systems society opening up technological dissemination and cross-pollination of ideas, a process of mutual promotion for future endeavors.

The conference published a volume of "Collected Research Papers of Applied Technology Dissemination on Supersonic Electronic Instrumentation to manage electrons, radar and military communication technology".

(Tongbai Chen)

SUPERSONIC MANUFACTURING AND SUPERSONIC WELDING TECHNOLOGY CONFERENCE HELD AT WOOSHI

From the Efficiency Supersonic Society and Electronic Manufacturing Technology Society, the Flux-Flow Supersonic Specialists Committee was formed to hold the first combined promotional conference for supersonic manufacturing and supersonic welding technology from October 17 to 19, 1990 in Wooshi City of Zhiangsoo Province.

Nationwide 45 representatives from 27 research institutes, technical high schools and factories presented 28 research papers, of which 13 papers were on supersonic manufacturing, 6 papers on supersonic welding and 9 papers on supersonic electronic sources and transducers. The Honorable Chairman of the Board Prof. Zhongfu Yin of the Acoustic Society gave the conference opening remarks. The representatives according to their wishes carried out very heated discussions on all the papers. After the conference, they all recognized that this conference had brought a large dividend for all the different societies in uniting and having such an extremely successful get-together.

As scientific technology is making progress, many areas start to make new special demands on mechanic manufacturing techniques which can promote supersonic manufacturing and stimulate the development of the cutting and compositing techniques. In recent years, in many advanced institutes, activities in such areas have become very vigorous, and have led to great progress. Now what one needs is some moderation, reliability, and maturity to allow them to be useful for practical supersonic facilities, and consequently we have to strengthen the research on the application of the manufacturing techniques so that they can be widely used.

In the supersonic welding, metallic welding occupies a unique position because it cannot be replaced by any other method, and thus at present it has a lot of applications and developments. Furthermore, welding of supersonic plastic materials is making rapid progress recently and there have been already some products for use in our country. Internationally, a new generation of plastic welding machines have been produced, and thus from now on we have to promote even more the technical functions of a facility and to strengthen the research on the manufacturing techniques application, in order to reach the world class level.

In the areas of supersonic electronic source and transducers, technical developments have been made in various directions, such as automatic tracing of chain phase-frequency of supersonic electronic sources, automatic control of efficiencies, etc. and development has been quickened in recent years. At present, crystalline tubes have been developed to be used in supersonic cleansing or as the efficiency source of supersonic welding and they have already become widely used, as reliable and high efficiency crystalline tube electronic sources. One can soon expect some further improvement to be made to commercialize the products.

In the quality of piezo-electric ceramics, domestic products have already reached the world class, and further quality improvement can come up with even better materials for transducers.

To encourage even more and even better research papers, this conference selected critically acclaimed research papers; certificates were issued to the papers being discussed in this conference as an added incentive.

(The secretariat group of the Efficiency Supersonic Society, Yuloong Ma)

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